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EXAMINER

LOHN, JOSHUA A

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 05/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/820,458

Applicant(s)

HICKS ET AL.

Examiner

Joshua A Lohn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-41 is/are allowed.
- 6) ☒ Claim(s) 1,4,6-9,12,14-17,20,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,10,11,13,18,19 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION*****Response to Arguments***

Applicant's arguments filed 5/3/04 have been fully considered but they are not persuasive.

As to the applicant's arguments regarding claim 1, the examiner respectfully disagrees. The applicant states that Cully fails to disclose how an uncorrectable data error is treated. The examiner interprets the passing of error and interrupt information, including any uncorrectable data errors, as disclosing how the error is treated (col. 3, lines 65-66). The applicant asserts that Culley et al., United States Patent number 6,000,040, (Culley) fails to disclose how an uncorrectable error is labeled and only provides for tree types of errors. Culley does disclose that the diagnostic program is aware of the origin of errors, the three types of errors only refers to general outcomes of handling the errors. In the instance of an uncorrectable data error, this condition is detected as a host bus error by the host bus watcher (col. 3, line 67, col. 4, lines 1-6), the host bus watcher then communicates with the diagnostic software (col. 19, lines 20-44), where the nature of the error indicated controls the action of the diagnostic software (col. 19, lines 54-67). This dependence upon the initial cause of an error shows that an inherent label exists to indicate the origins of all faults reported to the diagnostic system. Culley fails to specify the outcome resulting from specific errors, but the isolation of errors to specific modules and error types (col. 5, lines 50-63) provides the ability to analyze the attention signal and produce a record to provide the knowledge required to isolate the error condition to a specified port, as per the limitations of claim 1. The examiner asserts that despite the lack of detail in the handling of specific errors, the disclosure of Cully satisfies the limitations of claim 1 of the applicant's

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disclosure. Claim 1 does not provide detailed steps for handling errors other than indicating the existence and location of errors, which is also taught in the disclosure of Culley.

With respect to the applicant's arguments regarding claims 4, 6-9, 12, 14-17, 20, 22, and 23, the applicant provides the same arguments as those for claim 1. The examiner feels that the response provided above, with regard to claim 1, applies to all claims 4, 6-9, 12, 14-17, 20, 22, and 23.

The rejection of claims 4, 6-9, 12, 14-17, 20, 22, and 23 remains and is provided below.

With respect to the applicant's arguments regarding the objections to claims 2, 3, 5, 10, 11, 13, 18, 19, 21, and 24-38, the examiner agrees with and accepts the clarification provided and withdraws the objections that had been previously applied.

The objection of claims 2, 3, 5, 10, 11, 13, 18, 19, and 21 for being dependent upon a reject claim still remains.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6-9, 12, 14-17, 20, 22, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Culley et al., United States Patent no. 6,000,040, published December 7, 1999.

As per claim 1, Culley discloses a method for managing an uncorrectable data error from an I/O subsystem as the uncorrectable error passes through a plurality of devices in a central electronic complex. Culley discloses this through the detection of an I/O uncorrectable error

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condition by the SMR (system management remote) ASIC, which is a part of the diagnostic system and part of the central electronic complex, see column 3, line 61 through column 4, line 6. Culley further discloses providing an attention signal from the SMR to a diagnostic system, in the form of a system management central (SMC) ASIC, see column 5, lines 44-45. Culley also discloses then analyzing this attention signal by the SMC to produce a record for later use which can isolate the I/O uncorrectable error condition to the responsible port, as is shown in the reading of the error registers to determine the module responsible for the error, see column 5, lines 50-59, and in the storage of this information in the NVRAM for later use, see column 5, lines 60-63.

As per claim 4, Culley discloses that the diagnostic system comprises a processor runtime diagnostic (PRD) code, as is shown by the SMCs and SMRs operating independently and concurrently with the execution of the system microprocessor, see column 3, lines 4-33.

As per claim 6, Culley discloses that the PRD code is within a service processor, as is shown by diagnostic programs which are included in the SMP (system management processor), which acts as a system service processor, see column 5, lines 31-40.

As per claim 7, Culley discloses that the PRD code accesses each of a plurality of devices through an interface within the service processor, with the interface taking the form of dedicated test busses between the SMC and SMRs, see column 3, lines 24-26.

As per claim 8, Culley discloses the interface being a JTAG interface, see column 3, line 26.

As per claims 9, 12, and 14-16, these claims describe the same methods as claims 1, 4, and 6-8, only implemented in computer software. Culley discloses the I/O uncorrectable data

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error detection and handling occurring in software, see column 5, lines 35-39, where the system monitoring is taught to be utilizing various test programs.

As per claim 17, Culley discloses a service processor for managing an uncorrectable data error from an I/O subsystem as the uncorrectable error passes through a plurality of devices in a central electronic complex. This is shown in the system management processor that is responsible for executing diagnostic programs and includes the SMR and SMC ASICs as part of the processing system. Culley discloses the detection of an I/O uncorrectable error condition by the SMR (system management remote) ASIC, which is a part of the diagnostic system and part of the central electronic complex, see column 3, line 61 through column 4, line 6. Culley further discloses providing an attention signal from the SMR to a diagnostic system, in the form of a system management central (SMC) ASIC, see column 5, lines 44-45. Culley also discloses then analyzing this attention signal by the SMC to produce a record for later use which can isolate the I/O uncorrectable error condition to the responsible port, as is shown in the reading of the error registers to determine the module responsible for the error, see column 5, lines 50-59, and in the storage of this information in the NVRAM for later use, see column 5, lines 60-63.

As per claim 20, Culley discloses that the diagnostic system comprises a processor runtime diagnostic (PRD) code, as is shown by the SMCs and SMRs operating independently and concurrently with the execution of the system microprocessor, see column 3, lines 4-33.

As per claim 22, Culley discloses that the PRD code accesses each of a plurality of devices through an interface within the service processor, with the interface taking the form of dedicated test busses between the SMC and SMRs, see column 3, lines 24-26.

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As per claim 23, Culley discloses the interface being a JTAG interface, see column 3, line 26.

***Allowable Subject Matter***

Claims 2, 3, 5, 10, 11, 13, 18, 19, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, as well as written to overcome the minor informalities mentioned previously.

Claims 24-41 are allowable.

The following is a statement of reasons for the indication of allowable subject matter: Claims 24-38 are allowable based upon the limitation, when taken in the context of the claim as a whole, of detecting a SUE-RE condition in a first device, detecting a SUE-CS condition in at least one other device, and processing the two conditions at substantially the same time. Claims 39-41 are allowable based upon the limitation, when taken in the context of the claim as a whole, of “the UE can produce any of the following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition; a SUE-RE condition and a SUE-CS condition.”

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A Lohn whose telephone number is (703) 305-3188. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoleil can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JAL

  
SCOTT BADERMAN  
PRIMARY EXAMINER